085-HS

Force Closure, Form Closure, and Muscle Recruitment as Key Factors Driving Treatment of Sacroiliac Joint Dysfunction

Background: The prevalence of Sacroiliac Joint Dysfunction (SIJD) is 13-30% worldwide and may represent the cause of 20-40% of low back pain (LBP). The interaction of muscular components and anatomical form to provide stability to the joint have been explored as etiologic factors, but without unifying recommendations for treatment based on those elements. **Purpose:** To summarize, compare, and contrast evidence related to form closure, force closure, and muscle recruitment as factors impacting SIJD symptoms and interventions as a basis for recommendations for physical therapy management of SIJD. **Methods:** EBSCOhost Academic Search Complete was searched for systematic reviews, retrospective studies, meta-analyses, randomized control trials, case studies, prospective studies, and in-vivo studies with keywords “sacroiliac joint dysfunction", "sacroiliac joint pain", "sacroiliac joint instability", "sacroiliac joint", "form closure", "force closure", "motor control" and "muscle activity." Studies were excluded when sacroiliac pain was from a known etiology, including ankylosing spondylitis, psoriatic arthritis, rheumatoid arthritis, and fracture. Studies on techniques or equipment for surgical interventions were not considered. **Results:** The search yielded 20 articles, 15 of which met the inclusion criteria. Of those, 3 discussed form closure and 12 discussed force closure and muscle recruitment. Most studies were small in sample size, and several were unclear as to how they defined and diagnosed SIJD. **Conclusion:** Publications identified in this review heavily focused on force closure over form closure as an intervention strategy for SIJD. Additionally, SIJD lacks a reference standard for its detection, making diagnosis and treatment difficult to study. Based on the findings in this review, a recommendation for SIJD cannot currently be made. **Discussion:** The current research demonstrates the need for further research on SIJD. While the results indicated a focus on force closure, there were no established patterns used to treat it, leaving the final decision up to the practitioner.